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REMARKS

Claims 1-43, 47 and 48 are canceled; claim 44 is amended; and claims 44-46 are pending in the application.

The pending claims stand rejected over Moskovits, either alone or in combination with Iwasaki. Applicant respectfully requests reconsideration of such rejections.

Referring initially to claim 44, such recites a circuit construction comprising a semiconductor substrate; substantially crystalline electrically insulative material over the semiconductor substrate; openings extending within the substantially crystalline electrically insulative material; and electrically conductive material within the openings and corresponding to quantum dots. The claim further recites that the substantially crystalline electrically insulative material consists essentially of  $Ta_2O_5$ .

Amended claim 44 incorporates the subject matter of previous claim 41 therein. Claim 41 was rejected over Moskovits in combination with Iwasaki.

Amended claim 44 is allowable over the cited references for at least the reason that the Examiner's proposed combination of references does not teach all of the recited features of claim 44. Specifically, the cited references do not teach the claim 44 recited substantially crystalline electrically insulative material consisting essentially of  $Ta_2O_5$ . The Examiner notes that the references teach utilization of electrically insulative material consisting of aluminum oxide, and contends that it would be obvious to a person of ordinary skill in the art to recognize that tantalum oxide could be substituted for the aluminum oxide due to both materials having high dielectric constants.

Applicant respectfully submits that the Examiner's contention regarding the obviousness of substituting tantalum oxide for aluminum oxide is not an appropriate basis for a §103 rejection. Applicant first notes that each of the cited references specifically utilizes aluminum oxide as the insulative material because the references are utilizing anodization of the aluminum oxide to form pores within the aluminum oxide suitable for ultimate patterning of nanostructures (see, for example, column 7, lines 21-35 of Moskovits; and paragraph 0057 of Iwasaki). Nothing within the references teaches that tantalum oxide would have suitable properties which would enable it to substitute for aluminum in the anodization processes described in the references.

The Examiner's assertion that tantalum oxide has a high dielectric constant like aluminum oxide does not support the Examiner's contention that it would be obvious to a person of skill in the art to substitute tantalum oxide for the aluminum oxide of the references. Applicant respectfully submits that commonality of dielectric constant does not imply that tantalum oxide behaves similarly to aluminum oxide under particular anodization conditions, and thus does not imply that it would be obvious to substitute tantalum oxide for the aluminum oxide of Moskovits and Iwasaki. Accordingly, there would not be motivation for a person of ordinary skill in the art to replace the aluminum oxide of the cited references with tantalum oxide. The cited references therefore do not render the subject matter of claim 44 obvious.

Claim 44 is further allowable in that the amended claim recites that the tantalum oxide is over a semiconductor substrate. Moskovitz recites dielectric materials formed over metal substrates by oxidation of the metal of the metal substrates (see, for example, col. 4,

lines 15-45). Although Moskovits states that the metal substrates can be removed or replaced so that they are not part of a final structure (col. 2, lines 52-54), nothing in Moskovits indicates how such removal and replacement is conducted, and nothing indicates that the removal and replacement would result in substitution of a metal substrate with a semiconductor substrate. The Examiner indicates that it would be obvious to substitute a semiconductor substrate of Iwasaki for the metal substrate of Moskovits. Applicant respectfully disagrees, and submits that nothing in either reference indicates how one would remove the metal substrate of Moskovits, while leaving the nanostructures that had been supported by such substrate intact, and then replace the metal substrate with a semiconductor substrate.

For the above-discussed reasons, amended claim 44 is allowable over the cited references.

Claims 45 and 46 depend from claim 44, and are therefore allowable for least the reasons for which claim 44 is allowable.

Respectfully submitted,

Dated: 9/22/06

By:

  
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